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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,823	10/30/2003	Fay McElroy	33754.3	1292
27683	7590	12/06/2005	EXAMINER	
HAYNES AND BOONE, LLP			GAY, JENNIFER HAWKINS	
901 MAIN STREET, SUITE 3100			ART UNIT	
DALLAS, TX 75202			PAPER NUMBER	

3672

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/696,823	MCELROY ET AL.	
	Examiner	Art Unit	
	Jennifer H. Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 33 and 36 are objected to because of the following informalities: the examiner is not able to ascertain what applicant considers to be a “substantially continuous range of tensile force quantities” as a definition or explanation of “substantially” has not been provided.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

3. Claims 1, 2, 4, 7-10, 19-24, 27, 28, 30-33, 35-39, 41, 43, 44, 46, 47, 49-51, 53, 55, and 57 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor (US 4,919,219).

Regarding claims 1, 33, 53: Taylor discloses a wellbore system. The system includes the following features:

- A working string assembly that includes a first **12** and a second **14** portion.
- A tensioning device (not shown) configured to apply an adjustable tensile force to the working string.
- An impact jar **10** that includes the following features:
 - An impactor **20, 28** coupled to the first working string assembly portion via a first down-hole connection **30**.
 - An impactee coupled to the second working string assembly portion via a second down-hole connection **54**. The impactee is slidably coupled to the impactor and has a plurality of flexible coupling fingers **62** that are positionally fixed relative to the second connector in an axial direction (Figures 3 and 4).

- A biasable member 16 detachably engaged to the fingers in a pre-impact position and configured to disengage the fingers in response to a tensile force applied by the tensioning device reaching a predetermined quantity over a continuous range of tensile force quantities (8:34-9:2). The impactor and impactee are slidably coupled to impact one another in response to this disengagement.

Regarding claim 2: The impactor, impactee, and biasing member have apertures to form a continuous passage between the first and second connectors (Figures 3-8).

Regarding claims 4, 41, 55: The connectors are detachably connected to a wireline (2:65-67).

Regarding claims 7, 43, 57: The connectors can also be detachably connected to a snubbing working string (3:1-3).

Regarding claims 8, 9: The impactee includes a standard fishing neck interface with a beveled upstream edge (Figure 2) for connection to a fishing tool 14.

Regarding claim 10: The jar further includes a latch and release sleeve 66 slidably contained in the impactor. The sleeve restricts the disengagement of the fingers from the biasable member and allows the disengagement in response to the tensile force reaching the predetermined quantity.

Regarding claims 19, 37: The fingers and biasable member are configured to re-engage in response to a reduction of the applied tensile force (8:14-30).

Regarding claims 20, 21: The jar includes an anti-rotation mechanism configured to prevent relative rotation between the connectors (5:40-45). The mechanism is an axial slot in the impactor configured to receive an anti-rotation member (Figure 9).

Regarding claim 22: The impactor includes at least two impactor portions coupled by threaded fasteners (Figures 1A, 1B). Though not disclosed, the portions would include wrench flats in order to enable the portions to be connected and disconnected.

Regarding claim 23: The jar includes a locking clamp 66 couplable to the impactee when the impactee and the biasable member are not engaged where the clamp prevents the impactee and biasable member from becoming engaged.

Regarding claim 24: The connectors are considered fluid or air connectors, as they are capable of delivering fluid or air.

Regarding claims 27, 28: Taylor discloses that the outside diameter of the jar is within the recited range (2:65-3:3, 3:45-53).

Regarding claims 30, 31: Taylor discloses that the predetermined quantity of the tensile force is within the recited range (3:45-53).

Regarding claims 32, 39: Taylor discloses that once the predetermined quantity is reached the fingers and biasable member disengage and there is an impact instantaneously (7:49-66). The examiner considers “within about 5 seconds” to be met by the term instantaneously.

Regarding claim 35: A biasable member 16 detachably engaged to the fingers in a pre-impact position and configured to disengage the fingers in response to a tensile force applied by the tensioning device reaching a predetermined quantity. The impactor and impactee are slidably coupled to impact one another in response to this disengagement.

Regarding claim 36: Taylor further discloses a method for using the above system that involves coupling the jar to the down-hole equipment, operating the tensioning device to increase the force towards the predetermined quantity, reducing the tensile force apply by the tensioning device after the biasable member and impactee disengage.

Regarding claim 38: The method further involves alternately repeating the operating and reducing until the equipment is dislodged.

Regarding claim 44: The jar is coupled to the down-hole equipment prior to being placed in the wellbore.

Regarding claim 46: The method further involves adjusting the predetermined quantity (8:35-9:10).

Regarding claim 47: The biasable member includes a spring 16 and the jar includes an adjustor 66 against which one end of the spring is biased. The predetermined

Art Unit: 3672

quantity is adjusted by rotating the adjustor relative to the impactor to cause the adjustor to translate axially relative to the impactor thus compressing the spring.

Regarding claims 49, 50, 51: The predetermined quantity is adjusted without dismantling the jar or disconnecting the jar from the downhole equipment or tensioning device

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 5, 6, 25, 26, 29, 40, 42, 45, 52, 54, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor.

Regarding claims 3, 5, 6, 40, 42, 54, 56: Taylor discloses all of the limitations of the above claims except for the system being connected to a slick line or coiled tubing.

However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have placed the system of Taylor on a slick line, wireline, jointed tubing, or coiled tubing, since the examiner takes Official Notice of the equivalence of the above suspension means for their use run and use a impact jar and the selection of any of these known equivalents to run and apply tension to the impact jar of Taylor would be within the level of ordinary skill in the art.

Regarding claims 25, 26, 52: Taylor discloses all of the limitations of the above claims except for the length of the jar being about 5 feet and the weight of the jar being about 45 or 50 pounds.

However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the jar of Taylor so that it was 5 feet in length and weighed around 45 or 50 pounds, since it has been held that

Art Unit: 3672

discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 29: Taylor discloses all of the limitations of the above claims except for the impactee and biasable member being formed from nitrided steel.

However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have formed the impactee and biasable member from nitrided steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Regarding claim 45: Taylor discloses all of the limitations of the above claims except for connecting the jar to the downhole equipment after placement in the wellbore.

However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the jar of Taylor so that it was capable of being connected to downhole equipment after placement in the wellbore in order to have been able to use the jar with equipment that was already present in the wellbore without having to remove the equipment first. This would have enabled better connection with a stuck piece of equipment.

6. Claims 11-18, 34, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor in view of Nutter (US 3,685,598).

Regarding claims 11, 18, 34, 48: Taylor discloses all of the limitations of the above claims except for the system included an externally accessible adjustor to change the predetermined quantity.

Nutter discloses a system that is similar to that of Taylor. Nutter further teaches an externally accessible adjustor **85, 86** capable of changing the predetermined quantity of the system (5:42-63).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the system of Taylor to include an externally accessible adjustor as taught by Nutter in order to have been able to adjust the predetermined quantity without disassembling the tool. This would have saved time

during the jarring operation as well as eliminated the chances of the tool being damaged while being taken apart and reassembled.

Regarding claims 12, 13: The adjustors of both Taylor and Nutter are configured to adjust the predetermined quantity without disassembling the jar or disengaging the jar from the downhole tools.

Regarding claim 14: The adjustors of both Taylor and Nutter are configured to adjust the quantity from between 0 pounds and the predetermined quantity.

Regarding claim 15: The adjustor of Nutter includes a threaded member 87 axially translatable within the impactor in response to rotation relative to the impactor.

Regarding claim 16: The adjustor of Nutter includes an adjustment window (Figure 2A) and the adjustor includes a tool interface configured to receive a tool (not shown) through the window where the adjustor is configurable in response to motion of the tool.

Regarding claim 17: The adjustment window includes a cover 89.

Response to Arguments

7. Applicant's arguments filed October 21 2005 have been fully considered but they are not persuasive.

Regarding claims 1 and 53: Applicant has argued that Taylor does not disclose an impactor having a second downhole tool connector and a plurality of flexible coupling fingers positionally fixed relative to the second connector. The examiner disagrees and notes that Figures 3 and 4 show that the flexible coupling fingers 62 do not move relative to the second connector 54 but rather it is other components of the tool that move to actuate the flexible coupling fingers.

Regarding claims 33 and 36: Applicant has argued that Taylor does not disclose a field adjustable predetermined quantity that is adjustable over a substantially continuous range of tensile force quantities. The examiner disagrees and notes that this is clearly taught in column 8, line 34 through column 9, line 2.

Regarding claims 3, 5, 6, 25, 26, 29, 40, 42, 45, 52, 54, and 56: Applicant has argued that the features recited in the above claims are not obvious over Taylor, as Taylor

Art Unit: 3672

does not teach all of the limitations of the respective independent claims. As noted above, the examiner disagrees with applicant's assessment of the reference and believes that Taylor does teach all of the recited limitations of claims 1, 33, 36, and 53.

Regarding claims 11-18, 34, and 48: Applicant has argued that Nutter does not teach all of the limitations of the respective independent claims. While the examiner agrees, it is noted that Nutter was used merely to teach an externally accessible adjustor to change the predetermined quantity. Applicant is arguing Nutter as if applied under 35 USC 102(b) instead of 35 USC 103.

Applicant has further argued that neither Taylor nor Nutter disclose all of the limitations of the respective independent claims and thus are not combinable. As noted above, the examiner disagrees with applicant's assessment of the reference and believes that Taylor does teach all of the recited limitations of claims 1, 33, 36, and 53.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

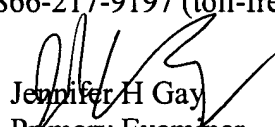
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

Art Unit: 3672

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jennifer H Gay
Primary Examiner
Art Unit 3672

JHG 
November 29, 2005